TERRA

THE NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY

VOL. 27, NO. 2 • NOVEMBER/DECEMBER 1988

1989 WALL CALENDAR

TREASURES OF THE TAR PITS

ICE AGE FOSSILS IN THE HEART OF LOS ANGELES

One of the world's richest Ice Age fossil sites lies in the heart of Los Angeles. At Rancho La Brea countless plants and animals were trapped in deposits of natural asphalt and preserved as fossils. These fossils now provide us with an incredibly complete picture of life between 10,000 and 40,000 years ago as the Ice Age drew to a close.

Ranging in size from giant mammoth skeletons to microscopic plant remains, the fossils include one-celled diatoms; pollen, seeds, leaves, cones, and wood; clam and snail shells; insect and spider skeletons; fish; salamanders, frogs, and toads; snakes, lizards, and turtles; birds; and mammals —more than 565 species in all.

Los Angeles as it might have looked on a late spring afternoon 20,000 years ago. Details of the mural appear on the following calendar pages. The mural is 48 × 100 inches, gouache on linen. Mural *© 1988, Mark Hallett.*

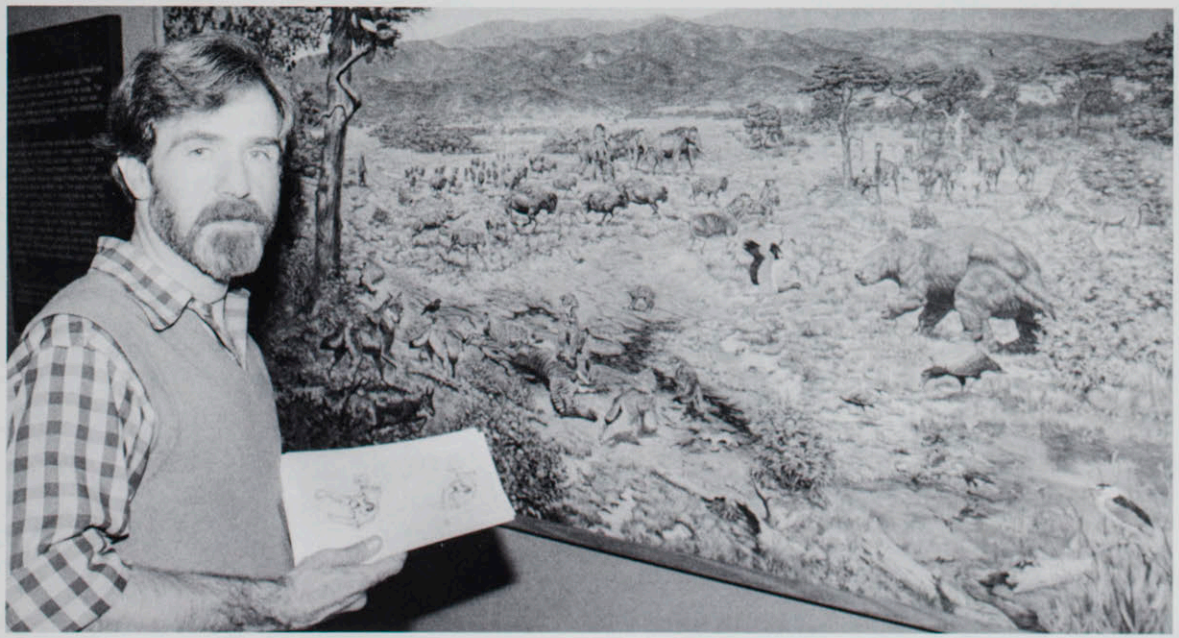
A LATE SPRING AFTERNOON 20,000 YEARS AGO

Differences between fossil organisms and their living representatives reveal much about changes in climate and environment at different times during the history of the earth. Fossil plants found at Rancho La Brea indicate that the climate 20,000 years ago was cooler and more moist than it is in southern California today. Although the shapes of the mountains and valleys would be familiar to the present residents of Los Angeles, they would find the landscape clothed in different vegetation and inhabited by some rather strange animals.

The new mural created by Mark Hallett for **Treasures of the Tar Pits,** the Natural History Museum's seventy-fifth anniversary traveling exhibition, shows the most up-to-date picture of Rancho La Brea as it might have looked on a late spring afternoon some 20,000 years ago. The scene depicts many of the animals that are preserved as fossils. It is unlikely that all of them would have been present in the same area at the same time. Similarly, the three different environments shown in the mural—freshwater pond, coastal sage scrub, and riparian stream bank woods—aren't normally found so close together. The artist attempted, however, to include as great a variety of plants and animals as possible.

Most of the large mammals in the mural and some of the birds became extinct during the close of the last Ice Age. Other animal species—including mollusks, insects, fish, amphibians, reptiles, and small mammals—can still be found today. All the plants are living today, but the distribution of some species has shifted because of climate changes.

Artist Mark Hallett and the new Rancho La Brea mural as it was installed for the Los Angeles run of the ***Treasures of the Tar Pits*** *exhibition. Photograph by Ed Norgord of the Pasadena* Star-News.



THE MAKING OF THE MURAL

The **Treasures of the Tar Pits** mural was specially commissioned by the Natural History Museum and painted by local wildlife artist Mark Hallett. Each detail in the mural—from the placement of the smallest water beetle in a freshwater pond to the number of imperial mammoths in a herd—was carefully reviewed for accuracy by museum scientists. Hallett met on numerous occasions with George Jefferson, Curator of the **Treasures of the Tar Pits** exhibition, and Dr. John Harris, Chief Curator of the museum's Earth Sciences division, to develop a design for the mural. Hallett conducted field studies with James Quinn, a museum Research Associate at Rancho La Brea who knows the Ice Age flora, to photograph plants like those that flourished 20,000 years ago. Finally, using measurements taken from Rancho La Brea skeletons, Hallett made dozens of anatomical studies of the extinct animals, focusing on reconstructing their musculature, movement, and coloring.

JANUARY

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
1 New Year's Day	**2**	**3**	**4**	**5**	**6**	**7**
8	**9**	**10**	**11**	**12**	**13**	**14**
15	**16** Martin Luther King's Birthday Observed	**17**	**18**	**19**	**20**	**21**
22	**23**	**24**	**25**	**26**	**27**	**28**
29	**30**	**31**				

Fossils of such water plants as spike rush and pond weed and such animals as the Black-crowned Night Heron (above) and the arroyo chub (being eaten by the heron), indicate that the Rancho La Brea asphalt seeps were close to streams and ponds. These species of heron, fish, and multicolored darner dragonfly still frequent southern California waterways. (Below) The La Brea Stork, which also may have hunted in fresh water, is now extinct. Because bird bones are fragile, they are rarely preserved as fossils. At Rancho La Brea, however, they absorbed liquid asphalt, which cushioned the bones and kept them from being broken. As a result, hundreds of thousands of fossil bird bones have been preserved.

Natural History Museum of Los Angeles County

FEBRUARY

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
			1	**2**	**3**	**4**
5	**6**	**7**	**8** Ash Wednesday	**9**	**10** Members' Open House	**11**
12	**13**	**14** St. Valentine's Day	**15**	**16**	**17**	**18**
19	**20** Presidents' Day	**21**	**22**	**23**	**24**	**25**
26	**27**	**28**				

A bee buzzes around owl's-clover while a western toad scurries toward blue-eyed grass with its meal of a darkling ground beetle. Interspersed with these wildflowers, commonly seen in southern California today, are California poppies, the state flower. (Below) Morning cloak and painted lady butterflies flit through the air. More than 100 species of insects, millipedes, and spiders have been identified from the 100,000 arthropod fossils that have been recovered from Rancho La Brea. Most of these insect species are still living, but some no longer live in southern California because the climate is now warmer and drier. Two species of scarab beetles that fed on the dung of large mammals are now, like those mammals, extinct.

Natural History Museum of Los Angeles County

MARCH

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
			1	**2**	**3**	**4**
5	**6**	**7**	**8**	**9**	**10**	**11**
12	**13**	**14**	**15**	**16**	**17** St. Patrick's Day	**18**
19 Palm Sunday	**20** First Day of Spring	**21**	**22**	**23**	**24** Good Friday	**25**
26 Easter Sunday	**27**	**28**	**29**	**30**	**31**	

Flat-headed peccaries run through the stream bank woods, one of the three major habitats shown in the mural. Peccaries are New World swine that now range from the southwestern United States to Patagonia; the flat-headed peccary, however, is extinct. (Below) A smaller woodland mammal, the California mole, consumes an earthworm. This species of mole still lives in southern California.

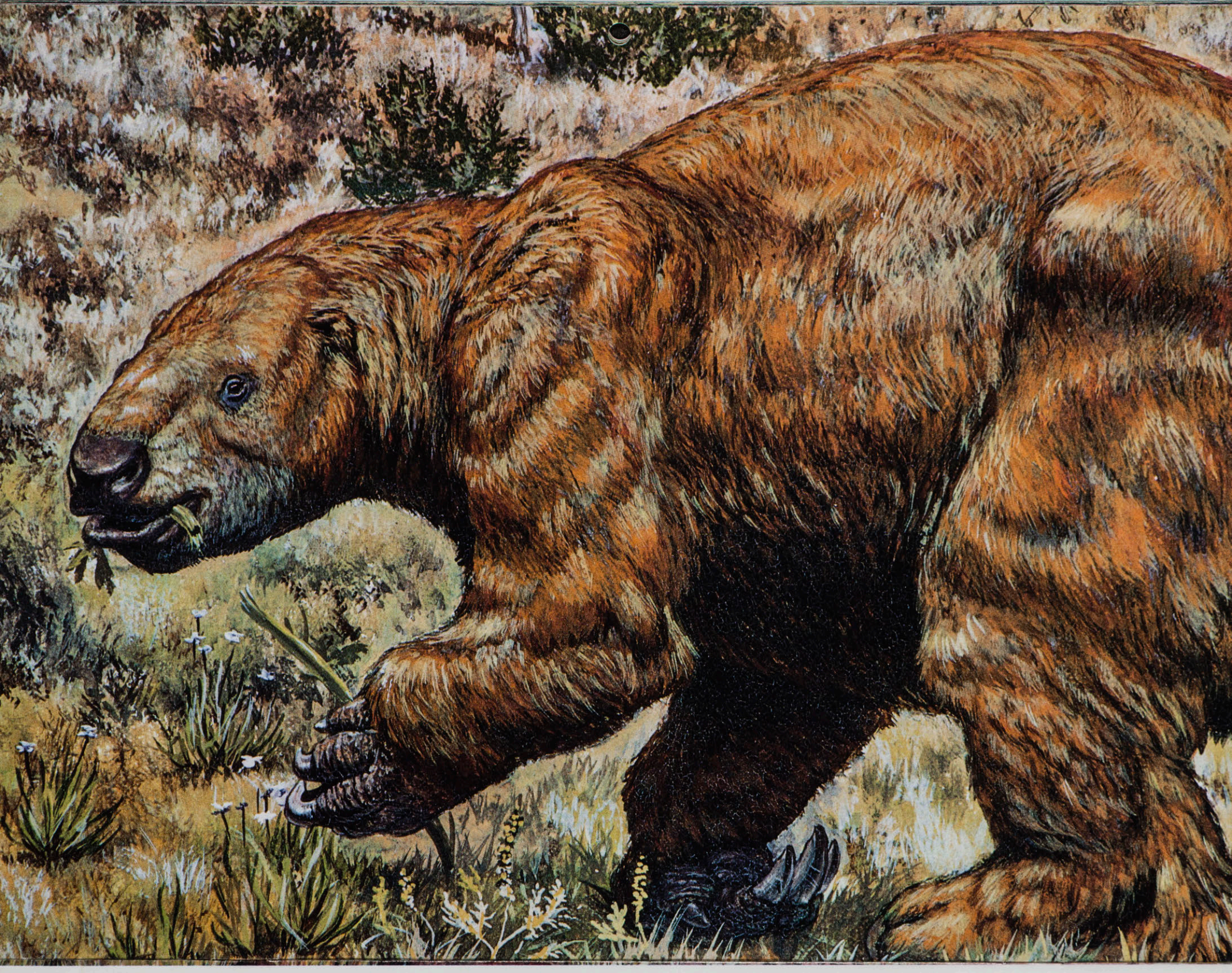
Natural History Museum of Los Angeles County

APRIL

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
						1
2	**3**	**4**	**5**	**6**	**7**	**8**
9	**10**	**11**	**12**	**13**	**14**	**15**
16	**17**	**18**	**19**	**20** Passover	**21**	**22**
23	**24**	**25**	**26**	**27**	**28**	**29**
30						

During the last Ice Age camels roamed the Los Angeles basin. The extinct western camel, which stood seven feet tall at the shoulder, was similar to the living Asian bactrian camel. The camels, browsing on sage and bunch grass, disturb a flock of Red-winged Blackbirds, still commonly seen in southern California. (Below) Another member of the camel family, the large-headed llama, which was one-third larger than living llamas, feeds on flowering elderberry. Neither camel nor llama fossils are common at Rancho La Brea.

Natural History Museum of Los Angeles County



MAY

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
	1	**2**	**3**	**4**	**5**	**6**
7	**8**	**9**	**10**	**11**	**12**	**13**
14 Mother's Day	**15**	**16**	**17**	**18**	**19**	**20**
21	**22**	**23**	**24**	**25**	**26**	**27**
28	**29** Memorial Day	**30**	**31**			

Ground sloths were large, primitive mammals related to the smaller present-day tree sloths of Central and South America. Two types of ground sloth are common at Rancho La Brea, the Harlan's ground sloth (above) and the Shasta ground sloth (below). A third type, Jefferson's ground sloth, is represented by only a few specimens. The Harlan's ground sloth stood a little over six feet tall and weighed one and one-half tons. It had nodules of bone—called *dermal ossicles*, which served as protection against predators—embedded in the skin of its neck and back. The Harlan's sloth fed on grass, tubers, leaves, and twigs, while the smaller Shasta ground sloth probably browsed on leaves and twigs from shrubs or low-hanging tree branches.

Natural History Museum of Los Angeles County

JUNE

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
				1	**2**	**3**
4	**5**	**6**	**7**	**8**	**9**	**10**
11	**12**	**13**	**14**	**15**	**16**	**17**
18 Father's Day	**19**	**20**	**21** First Day of Summer	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**	

A saber-toothed cat defends its meal of a western horse trapped in an asphalt seep from marauding dire wolves. The predators will also become stuck in the asphalt. Of all the animals known from Rancho La Brea, the saber-toothed cat most vividly captures the imagination; it has even been named the state fossil of California. The saber-toothed cat was the size of the modern African lion; however, it has no living relatives. The large number of saber-toothed cats found at Rancho La Brea indicate that it may have hunted in packs. (Below) The western horse, as tall as a modern quarter horse but more heavily built, was one of the last species of horse native to North America. It became extinct at the end of the Ice Age. A different horse species was introduced from Europe. The coat pattern of the western horse is conjectural.

Natural History Museum of Los Angeles County

JULY

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
						1
2	**3**	**4** Independence Day	**5**	**6**	**7**	**8**
9	**10**	**11**	**12**	**13**	**14**	**15**
16	**17**	**18**	**19**	**20**	**21**	**22**
23	**24**	**25**	**26**	**27**	**28**	**29**
30	**31**					

Merriam's Teratorn, with a wingspan of fourteen feet, was the largest bird found in the Rancho La Brea asphalt desposits. The teratorn was a member of the stork family and a predator that chased its prey on the ground. Here a teratorn stalks a California Turkey family. Many bones of the extinct turkey found at Rancho La Brea are from young birds. Broods of turkey chicks tend to stay together; if one were caught in the asphalt, its cries of distress would attract the remainder of the brood, which might in turn become trapped. Also in the scene above is a Northern "Bollocks" Oriole. (Below) The Yellow-billed Magpie was one of the songbirds most commonly trapped at Rancho La Brea. The oriole and magpie still live in California.

Natural History Museum of Los Angeles County

AUGUST

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
		1	**2**	**3**	**4**	**5**
6	**7**	**8**	**9**	**10**	**11**	**12**
13	**14**	**15**	**16**	**17**	**18**	**19**
20	**21**	**22**	**23**	**24**	**25**	**26**
27	**28**	**29**	**30**	**31**		

The powerful dire wolf is now extinct, but during the last Ice Age it ranged throughout the Western Hemisphere. More than 1,600 individuals have been recovered from Rancho La Brea —more than any other species of mammal. The dire wolf has larger and more massive teeth than the living timber wolf, which has also been found at Rancho La Brea. (Below) A Caracara feeds on the remains of a dire wolf. This bird, which has living relatives in South America, was a ground-dwelling carrion feeder. Above left is a turkey chick (see July).

Natural History Museum of Los Angeles County

SEPTEMBER

The largest cat found in the asphalt deposits is the American lion, now extinct. It was larger than the Asian and African lions, its closest living relatives. About one hundred of these formidable carnivores have been recovered from Rancho La Brea. (Above) Two lionesses are bearing down upon an ancient bison calf. The ancient bison was the most common of the two bison species recovered from Rancho La Brea and the herbivore most often found in the asphalt deposits. Both bison were taller than the modern bison. (Below) The ancient bison herd has been frightened by the lions.

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
					1	**2**
3	**4** Labor Day	**5**	**6**	**7**	**8**	**9**
10	**11**	**12**	**13**	**14**	**15**	**16**
17	**18**	**19**	**20**	**21**	**22**	**23** First Day of Autumn
24	**25**	**26**	**27**	**28**	**29**	**30** Rosh Hashanah

Natural History Museum of Los Angeles County

OCTOBER

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
1	**2**	**3**	**4**	**5**	**6**	**7**
8	**9** Columbus Day Observed	**10**	**11**	**12**	**13**	**14**
15	**16**	**17**	**18**	**19**	**20**	**21**
22	**23**	**24**	**25**	**26**	**27**	**28**
29	**30**	**31** Halloween				

Although the imperial mammoth (above) and American mastodon (below) looked similar and both ate plants, there were differences in their habitats and diet. The mammoths ate a variety of hard, tough vegetation such as grass and tree bark. The mastodons ate softer material such as leaves and pine needles. The mammoth was closely related to modern Indian and African elephants. It stood up to thirteen feet tall, while the mastodon stood about seven feet at the shoulder. Mastodons were only distantly related to the elephants. (Below) A Scrub Jay perches in the foreground.

Natural History Museum of Los Angeles County

NOVEMBER

Amphibians and reptiles from Rancho La Brea include one species of salamander, five species of frogs and toads, seven species of lizards, nine species of snakes, and one species of turtle. All these animals are found in southern California today. The presence of frogs and toads (see February) and the western pond turtle (above) also indicates that there were streams and ponds in the area and suggests that the climate was more moist than at present. (Below) A climbing salamander and a Cronkhite's land snail inhabit a cypress stump.

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
			1	**2**	**3**	**4**
5	**6**	**7** Election Day	**8**	**9**	**10**	**11** Veterans Day
12	**13**	**14**	**15**	**16**	**17**	**18**
19	**20**	**21**	**22**	**23** Thanksgiving	**24**	**25**
26	**27**	**28**	**29**	**30**		

Natural History Museum of Los Angeles County

DECEMBER

Two Golden Eagles circle above the Santa Monica Mountains. The Golden Eagle is the most common fossil bird found at Rancho La Brea. There were also six species of extinct eagles, including one with unusually long legs. (Below) A La Brea Owl, now extinct, roosts in a tree. Eight living owl species also occur. Owl fossils are rare at Rancho La Brea, however. Generally nocturnal hunters, the owls were probably trapped while trying to capture small animals struggling to free themselves from the asphalt.

Sunday	*Monday*	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*
					1	**2**
3	**4**	**5**	**6**	**7**	**8**	**9**
10	**11**	**12**	**13**	**14**	**15**	**16**
17	**18**	**19**	**20**	**21** First Day of Winter	**22**	**23** Hanukkah
24	**25** Christmas	**26**	**27**	**28**	**29**	**30**
31						

Natural History Museum of Los Angeles County

In 1926 Charles Knight—working under the direction of Dr. Chester Stock, who published the first comprehensive account of the Rancho La Brea fossils—painted this prehistoric scene of Ice Age Los Angeles. This shows only a portion of the entire mural. Current research suggests that the area was less grassy than it appears in this early mural and was covered by coastal sagebrush with groves of pine, valley oak, and cypress. This mural—which is 8 × 36 feet, oil on canvas—is now in the collections of the Natural History Museum of Los Angeles County.

TREASURES OF THE TAR PITS

The Natural History Museum's Ice Age show, **Treasures of the Tar Pits,** will be touring the United States and Canada for the next five years. Future venues include Indianapolis, Philadelphia, Boston, New York, Milwaukee, Fort Worth, Jacksonville (Florida), Cincinnati, Toronto, Houston, Portland (Oregon), and Drumheller (Alberta, Canada). The exhibition was made possible in Los Angeles by the generous support of Occidental Petroleum Corporation and Coldwell Banker Residential Real Estate Services/Southern California.

THE GEORGE C. PAGE MUSEUM OF LA BREA DISCOVERIES

Right: George C. Page surrounded by school children at the Page Museum of La Brea Discoveries. Mr. Page's early fascination with the unique La Brea asphalt deposits prompted him in 1973 to offer to build an innovative and spectacular museum on the site. The Page Museum was dedicated and opened to the public on April 13, 1977. Photograph by Jeff Corwin.

Fossils from the world-famous Rancho La Brea deposits were among the first specimens in the collections of the Natural History Museum of Los Angeles County when it opened in 1913. The museum was later given the responsibilities for administering 23-acre Hancock Park, the richest fossil-bearing portion of the Rancho La Brea deposits. Today the extensive collections from Rancho La Brea are stored and featured in the impressive displays of the George C. Page Museum of La Brea Discoveries; this beautiful museum is a satellite facility of the Natural History Museum.

The Page Museum is located at 5801 Wilshire Boulevard, Los Angeles, 90036; for general information call 213/936-2230. For further information on Rancho La Brea, please see *Treasures of the Tar Pits* (1985), edited by John M. Harris and George T. Jefferson and published by the Natural History Museum of Los Angeles County. It is available at both the Page Museum Gift Shop and the Natural History Museum Bookstore.

A SALUTE TO OUR EXHIBITION UNDERWRITERS

Treasures of the Tar Pits, the Natural History Museum's seventy-fifth anniversary traveling exhibition, is made possible by a generous gift from

Occidental Petroleum Corporation*
Coldwell Banker Residential Real Estate Services

Throughout the museum's seventy-fifth anniversary celebration we salute the generosity of the following corporation, foundation, and individual sponsors who bring an exciting array of exhibitions and educational programs to the southern California community:

Gold: The Quest for New World Riches (1987)
Gold Card Division, American Express Travel Related Services Company, Inc.*
The Precious Metals Investment Group, a division of Security Pacific National Bank*
Homestake Mining Company
Monex International, Ltd.

Magnificent Voyagers (1987)
ARCO*
Occidental Petroleum Corporation*

Hollywood: Legend and Reality (1987)
Target Stores*
Northrop Corporation*
Turner Entertainment Company*
Mary Pickford Foundation

Kadimakara: Fossils from the Australian Dreamtime (1988)
Paul Hogan

Art from the Navajo Loom: The William Randolph Hearst Collection (1988)
May Company California*
Chase Manhattan Bank

King Herod's Dream: Caesarea on the Sea (1988)
Hebrew Union College Skirball Museum*
Milken Family Foundation*
Victor M. and Adrea Carter

Treasures of the Tar Pits (1988)
Occidental Petroleum Corporation*
Coldwell Banker Residential Real Estate Services/Southern California*

Lost and Found Traditions: Native American Art, 1965–1985 (1988)
The Times Mirror Company*
Many Horses Gallery

Kokoro Dinosaurs (1988)
JCPenney

Nomads: Masters of the Eurasian Steppe (1989)
Occidental Petroleum Corporation*
California Council for the Humanities*
Max Baril*

First Egyptians (1989)
Bruce Ludwig

Sharks: Fact and Fantasy (1990)
National Science Foundation*
Sea World

Court Arts of Indonesia (1991)
Texaco Philanthropic Foundation, Inc.*

EDUCATION UNDERWRITING

Discovery Center
Ralph M. Parsons Foundation*
Mattel Foundation*

School Tour Program
Thomas and Dorothy Leavey Foundation*
Ralph M. Parsons Foundation*

Senior Outreach Program
Beverly Enterprises

Special Education Outreach Program
National Medical Enterprises*

Free Day Program
ARCO
Northern Trust of California

*designates gifts of $25,000 or more

TERRA

THE MEMBERS' MAGAZINE
OF THE NATURAL HISTORY MUSEUM
OF LOS ANGELES COUNTY
AND THE PAGE MUSEUM
OF LA BREA DISCOVERIES
VOL. 27, NO. 2 • NOVEMBER/DECEMBER 1988

DIRECTOR
Craig C. Black

CHIEF DEPUTY DIRECTOR
Mark A. Rodriguez

ACKNOWLEDGEMENTS
The Editor would like to acknowledge the input and assistance of Dr. John M. Harris, George T. Jefferson, Mark Hallett, Kathleen Rydar, Susan McCarthy, Shelley Stephens, Heather Northway, Judith L. Chovan, Dick Meier, John De Leon, Don Meyer, and Robin Simpson.

LOS ANGELES COUNTY BOARD OF SUPERVISORS
Dean Dana, Chairman, Fourth District
Peter F. Schabarum, First District
Kenneth Hahn, Second District
Edmund D. Edelman, Third District
Michael D. Antonovich, Fifth District

HEAD OF PUBLICATIONS
Robin A. Simpson

EDITOR
Kathy Talley-Jones

ASSOCIATE EDITOR
Harry J. Pack

EDITORIAL BOARD
Craig C. Black / Daniel M. Cohen / Janet R. Fireman / Joan Grasty / John M. Harris / Peter C. Keller / William A. Mingst / Harry J. Pack / Kathleen L. Rydar / Robin A. Simpson / Kathy Talley-Jones

DESIGN
Armin Krumbach

MUSEUM PHOTOGRAPHERS
Dick Meier / John De Leon / Don Meyer

ADVERTISING SALES REPRESENTATIVE
Western Media Sales
50 West Hillcrest Drive, Suite 215
Thousand Oaks, CA 91360
Telephone: 805 / 496-3500
Telex: 182640 WKVG

TERRA is published bimonthly by the Natural History Museum of Los Angeles County and is sent as a benefit to museum members. Wall calendar price: $5. Subscriptions: $12 per year. For membership information, visit the Membership Office at the Natural History Museum or call 213/744-3426. All other inquiries can be referred to the Publications Office, Natural History Museum, 900 Exposition Boulevard, Los Angeles, CA 90007. Printed by North Hollywood Printing Co., Inc. Color separations by Toppan Graphic Arts Center West. Typography by RS Typographics. All Rights Reserved. Reproduction in whole or in part without permission is prohibited. ISSN 0040-3733

Islands of Indonesia

Sumatra, Java, and Bali
March 11-20, 1989
Natural History Museum Travel Program

Join noted Asia scholar Mary Lanius, Ph.D. for a unique study tour to the exotic "Islands of Indonesia." Learn about mountainous Sumatra, home of the fascinating Batak tribes and the endangered red orangutan. Explore Hindu and Buddhist temples in Java and browse among shops filled with exquisite folk art and batik. On Bali, Indonesia's magical haven for the arts, attend privately arranged dance performances and dine on Balinese cuisine with an island prince.

Throughout the tour, Dr. Lanius will share her knowledge and personal insights about this exotic island nation with enlightening lectures and informal discussions.

Your fee: $2,590 (plus airfare).

☐ Please send me the brochure containing complete information about "Islands of Indonesia."

☐ Please reserve _____ space(s) on the "Islands of Indonesia" study tour. Enclosed is my (our) check in the amount of _____ ($400.00 per person).

NAME(S): _____

ADDRESS: _____

CITY, STATE, ZIP: _____

TELEPHONE: (DAY) _____

(EVENING) _____

Please make checks payable to High Country Passage, Inc. and mail this form to:

Karen Hovanitz
Museum Travel Program, Natural History Museum
900 Exposition Blvd., Los Angeles, CA 90007

BOARD OF
TRUSTEES OF
THE NATURAL
HISTORY
MUSEUM
FOUNDATION

Robert S. Attiyeh
Chairman
Stephen R. Onderdonk
President
Otis Chandler
Vice President
David Comsky*
Vice President
Leslie C. Curtis
Vice President
Mrs. Justin Dart
Vice President
William A. Mingst
Vice President
Charles O. Parker II
Vice President
Mrs. Thomas Reddin
Vice President
Richard C. Seaver
Treasurer
Dr. M. Norvel Young
Secretary
Richard Call, M.D.*
Assistant Secretary
Alan W. Hart
Assistant Treasurer
Ed N. Harrison*
President, Board of Governors
Robert V. Adams
Mrs. Jane Boeckmann*
Franklin Otis Booth, Jr.*
Mrs. Raouf Boudjakdji
Judge Wm. Matthew Byrne, Jr.
(Emeritus)
George V. Caldwell
James H. Cheney
H. Frederick Christie
Camron Cooper
Mrs. Arthur L. Crowe
Matthew K. Fong*
Albert B. Glickman
(Emeritus)
James C. Hankla*
John F. Harrigan
Ivan J. Houston*
Ray R. Irani
Mrs. Betty O. Irvin*
Mrs. Kenneth Leventhal
Jose I. Lozano*
William M. Marcussen*
Dan L. McGurk
G. Everett Miller
(Emeritus)
George C. Page
Robert E. Petersen
Susan F. Rice
Sheldon Richman
Richard J. Riordan
Nelson C. Rising
Joseph Ryan
Marc A. Seidner*
Mynatt Smith*
Mrs. James Stewart
Mae Sue Talley
(Emeritus)
Richard S. Volpert*
Frank G. Wells
John G. Wigmore*
Gin D. Wong
Evelle J. Younger*
William R. Zimmerman

*Governor

ALLIANCE
BOARD OF
DIRECTORS

Mrs. Kenneth Leventhal
President
Mrs. Thomas Reddin
Immediate Past President
Robert S. Attiyeh
Walter S. Berkman
William J. Bird
Neal H. Brockmeyer
Mrs. Francis L. Dale
J. Shelton Ellis, Jr.
Mrs. Robert Feinerman
Justice Ronald M. George
Robert Graham
Patricia Herbert
Mrs. Barbara J. Hogue
Dr. Patricia House
Marshall I. Kass
Mrs. Lindbergh Kawahara
Dr. Len Kleinman
Carole Sumner Krechman
Dr. Frank Lavac
Ernest M. Lever
Marvin H. Lewis
Mrs. Hugh H. Logan
Alan G. Lowy
Douglas J. Macdonald
Mrs. Maurice Machris
Ray T. McCullough
John L. Meek
William A. Mingst
Dr. Elliot Mininberg
Mrs. Roy Nutt
Stephen R. Onderdonk
A. F. Osterloh III
Robert Patterson
Mrs. Dan Pocapalia
Sheldon Richman
Mrs. Charles Rinsch
Mrs. Leon I. Singer
Mary R. Spring
Mrs. Irving Stone
Harry H. Tytle
Lorraine P. Young

Natural History Museum
of Los Angeles County
Exposition Park, Los Angeles,
California 90007